

How To Find A Job

When a BS in Physics meets the real world

February 27, 2018

Cliff Slaughterbeck
Sr. Manager, Systems Design Engineering



**ALLEN INSTITUTE for
BRAIN SCIENCE**

About Me – Education

Graduated from University of Idaho with BS in Physics and BS in Mathematics in 1987

- Thought I would be interested in studying astronomy, but found optics and condensed matter physics interesting as well.
- Decided I wanted to go to graduate school...

Graduated from UW with a PhD in Physics in 1996

- Helped move from the old Physics Bldg (now Mary Gates Hall) into this building
- Thesis: “Surface Melting of Ice” (advisor Sam Fain).
- Also spent time working with the Physics Ed group as a TA.
- Realized that I wasn’t all that interested in academic career track as I neared completion of my studies – what to do next?



About Me – Employment History I

Applications Engineer, Microstar Laboratories – Bellevue ('96 – '00)

- Data acquisition specialist
- Conducted training sessions for customers and employees



Embedded Software Engineer, Index Sensors and Controls – Redmond/Stanwood ('00 – '03)

- They were one of my customers when I worked for Microstar Laboratories
- Designed embedded control systems on microcontrollers for automotive systems, refrigerator/freezers, pellet stove controllers, and even a coffee roaster.
- No operating system, just read and write directly to ports to send and receive signals.



About Me – Employment History II

Embedded Software Engineer, Intelligent Ion Inc. – Seattle ('04)

- Spin off from UW Chemistry department professor who had an idea he wanted to commercialize
- Startup company trying to build a desktop sized mass spectrometer.
- Continued to develop skills as an embedded software engineer working with custom chips, 32-bit processors (still no OS) and TCP/IP.





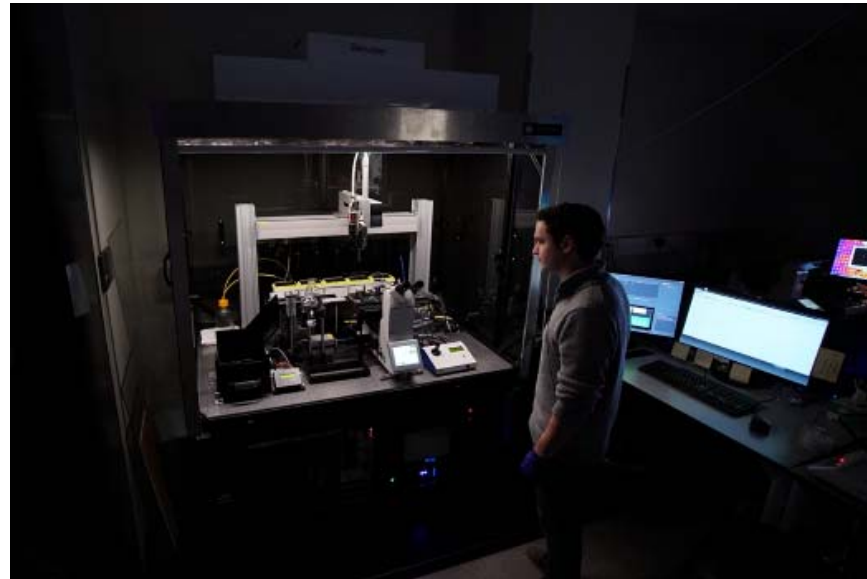
– Emplo

Engineering

in for high thro
holistically.
, and software compo
troubleshooting as w



ems



The Job Search Process

Steps

1. Identify companies you might want to work for
2. Application process – Resume and cover letter
3. Phone Screen(s) – can be several levels of this
4. Interviews – not uncommon to be more than one
5. Repeat...in parallel

*It can easily take
12-18 months to
find the right job!*



How to find a job – Looking for a company

Know what you want to do with your career and apply for positions that match that.

Networking

- Use any inside contacts that you have at a company to your advantage
- This is a **huge** benefit to getting your resume seen.
- Use Linked In, family contacts, friends, etc.

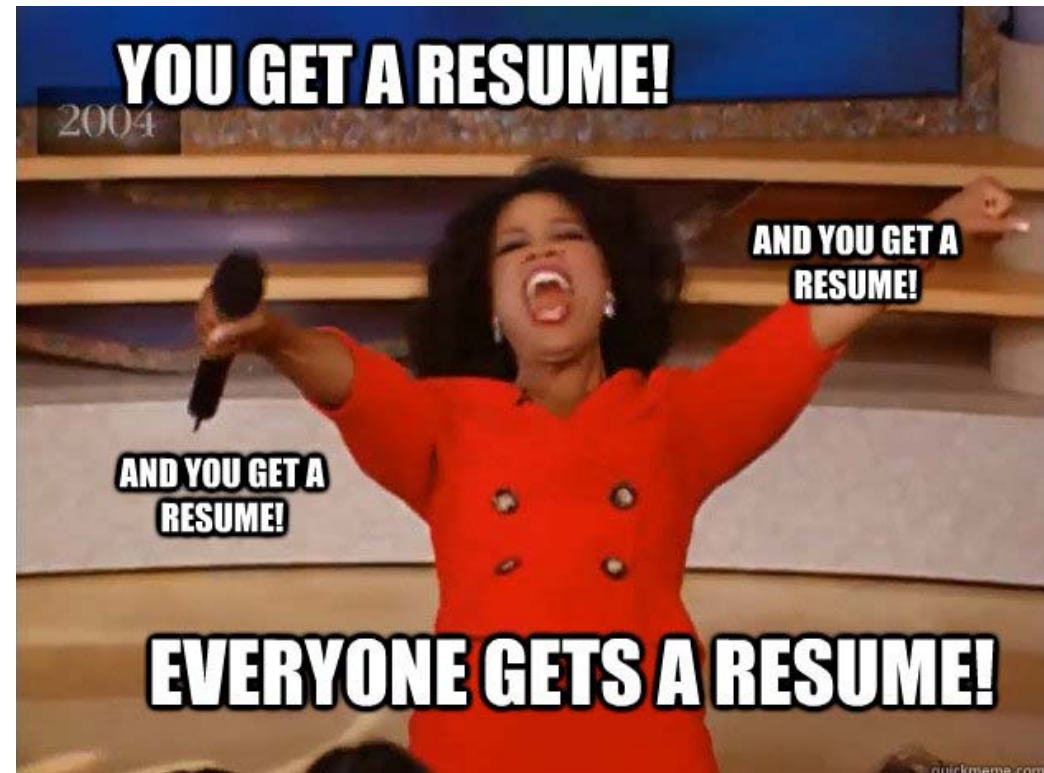
Don't flood the market.

- Employers can see if you applied for multiple positions at the same place
- Quality over quantity!



How to find a job – Your resume

- Things to include: Skills
 - Analytical skills – physics education is excellent preparation for this. Make sure you emphasize how well you solve problems.
 - Software languages – C++, Python, etc.
 - Instrumentation skills, e.g. optics, lasers, etc.
 - EE tools - FPGA, Analog/digital design, Board layout
 - ME tools - Solidworks, etc.
- Things to include: Experience
 - List most important experiences first
 - Senior project, internships
- Things not to include
 - Class list - not relevant to any job you will ever apply for.
 - GPA if < 3.7



How to find a job – Cover Letter



Absolutely must do this!

- Tailor it to the specific position
 - Research the company before applying.
 - Match the cover letter to the job requirements.

Know your audience - put yourself in the position of the hiring manager and try and present your case for why you should get the job.



How to find a job – Phone interviews



- Have a plan! Spend 2-3 hours more of researching the company.
- Be able to answer a lot of canned interview questions
- Ask engaging questions! You should have lots of questions from your research.
 - Pick at least 3-5.
 - Listen to the answers and follow up.
- Engage!!! This is critical - people want to hire someone who is interested and engaged with the company.
- Be polite. This goes a long way in all endeavors.

How to find a job – In person interviews

- Have a detailed plan before you go
 - Who is on the interview team?
 - What will each individual on the interview team want to know about you and how you can do the work of this job?
 - Is there some kind of skills test as part of the job interview?
 - **PRACTICE!!!!**
- Dress for success - show professionalism
- Show up about 10-15 minutes early.

